

**Amended Claims With Mark-ups to Show Changes Made**

1. (Amended) A method for a gain control of a fiberoptic repeating system comprising:  
mixing from a master repeater a modulated MODEM signal of a predetermined level  
with a RF signal and transmitting the mixed signal through an optical cable;  
detecting at a slave repeater a modulated MODEM signal level from the mixed signal  
transmitted by the master repeater;  
comparing at the slave repeater, the detected modulated MODEM signal level with a  
reference level and obtaining a difference between the levels; and  
[controlling] adjusting a gain of an amplifier for the RF signal in the slave repeater [based  
upon said] by using the obtained difference to calculate the gain adjustment.

4. (Amended) A method of claim 1, wherein controlling the gain of the amplifier [to  
increase] comprises increasing a level of the RF signal by the obtained difference.

5. (Amended) A method for a fiberoptic repeating system comprising:  
transmitting from a base station a first RF signal;  
amplifying the first RF signal by a constant level through an amplifier of a master  
repeater;  
mixing a first modulated MODEM signal of a predetermined level with the first amplified  
RF signal and transmitting the mixed signal through an optical cable to a slave repeater;

receiving and separating the mixed signal into a second modulated MODEM signal and a second RF signal, and detecting a modulated MODEM signal level from the second modulated MODEM signal;

comparing, at the slave repeater, the detected modulated MODEM signal level with a reference level and obtaining a difference between the levels;

controlling a gain of an amplifier for the RF signal in the slave repeater based upon said obtained difference; and

amplifying the second RF signal according to the controlled gain and transmitting the second amplified RF signal to terminal.

8. (Amended) A method of claim 5, wherein controlling the gain of the amplifier for the RF signal in the slave repeater [to increase] comprises increasing a level of the second RF signal by the obtained difference.

Clean Set of Amended Claims

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1. (Amended) A method for a gain control of a fiberoptic repeating system comprising:  
mixing from a master repeater a modulated MODEM signal of a predetermined level  
with a RF signal and transmitting the mixed signal through an optical cable;  
detecting at a slave repeater a modulated MODEM signal level from the mixed signal  
transmitted by the master repeater;  
comparing, at the slave repeater, the detected modulated MODEM signal level with a  
reference level and obtaining a difference between the levels; and  
adjusting a gain of an amplifier for the RF signal in the slave repeater by using the  
obtained difference to calculate the gain adjustment.

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4. (Amended) A method of claim 1, wherein controlling the gain of the amplifier  
comprises increasing a level of the RF signal by the obtained difference.

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5. (Amended) A method for a fiberoptic repeating system comprising:  
transmitting from a base station a first RF signal;  
amplifying the first RF signal by a constant level through an amplifier of a master  
repeater;  
mixing a first modulated MODEM signal of a predetermined level with the first amplified  
RF signal and transmitting the mixed signal through an optical cable to a slave repeater;

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receiving and separating the mixed signal into a second modulated MODEM signal and a second RF signal, and detecting a modulated MODEM signal level from the second modulated MODEM signal;

comparing, at the slave repeater, the detected modulated MODEM signal level with a reference level and obtaining a difference between the levels;

controlling a gain of an amplifier for the RF signal in the slave repeater based upon said obtained difference; and

amplifying the second RF signal according to the controlled gain and transmitting the second amplified RF signal to terminal.

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8. (Amended) A method of claim 5, wherein controlling the gain of the amplifier for the RF signal in the slave repeater comprises increasing a level of the second RF signal by the obtained difference.

**C. Please add new claims 9-11 as follows:**

9. (New) A method of controlling gain in a fiberoptic communication system, comprising:

combining a monitoring signal of a predetermined level with an RF signal;

transmitting the combined monitoring and RF signals to a slave repeater;

separating the transmitted monitoring signal from the transmitted RF signal at the slave repeater;

comparing, at the slave repeater, a level of the transmitted monitoring signal with the predetermined level; and

adjusting a gain applied to the transmitted RF signal by using the comparison to calculate the gain adjustment.

10. (New) The method of claim 9, wherein the monitoring signal of a predetermined level comprises a modulated MODEM signal.

11. (New) The method claim 9, wherein the transmitting step comprises:

converting the combined monitoring and RF signals into an optical signal; and

transmitting the optical signal to the slave repeater via an optical fiber.